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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/635,190 | 08/06/2003 | Chang Chin-Chin | Midway-605 | 8318 |
| 7590 05/05/2004 Connolly Bove Lodge & Hutz LLP P.O. Box 2207 Wilmington, DE 19899-2207 | | | EXAMINER ALIE, GHASSEM | |
| | | | ART UNIT 3724 | PAPER NUMBER |

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/635,190

Applicant(s)

CHIN-CHIN, CHANG

Examiner

Ghassem Alie

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on the filing date of the application.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Shiotani et al. (5,257,570), hereinafter Shiotani. Regarding claim 1, Shiotani teaches a circular sawing machine including a base 1 and a saw seat 14 which is movable relative to the base 1. Shiotani also teaches a link mechanism 4 which is pivotally mounted between the base 10 and the saw seat 14, so that the saw seat 14 is linearly movable relative to the base 1. See Figs. 1-5 and 9-25 and col. 4, lines 27-68 and col. 5, lines 1-39 in Shiotani.

Regarding claim 4, Shiotani teaches everything noted above including that the link mechanism 4 has a symmetrical structure, so that the saw seat 14 can be moved linearly relative to the base 1 by linear movement of the link mechanism 4. The symmetrical structure is defined by the pivot points of the link 42 which are has a symmetrical structure. See Figs. 1-5 in Shiotani.

Regarding claim 12, Shiotani teaches everything noted above including that the saw seat 14 is pivoted with a circular saw blade 5. See Figs. 1-5 in Shiotani.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1, 4, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Olsen (1,765,733). Regarding claim 1, Olsen teaches a circular sawing machine including a base 5 and a saw seat which is movable relative to the base 5. Olson also teaches a link mechanism 10 which is pivotally mounted between the base 5 and the saw seat, so that the saw seat is linearly movable relative to the base 5. See Figs. 1-4 and page 1, lines 36-99 in Olsen.

Regarding claim 4, Olsen teaches everything noted above including that the link mechanism 10 has a symmetrical structure, so that the saw seat can be moved linearly relative to the base 5 by linear movement of the link mechanism 10. See Figs. 1-4 and page 1, lines 36-99 in Olsen.

Regarding claim 12, Olsen teaches everything noted above including that the saw seat is pivoted with a circular saw blade 9. Figs. 1-4 and page 1, lines 36-99 in Olsen.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 3, and 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olsen in view of Kroeker (6,719,516). Olsen teaches everything noted above including that the link mechanism 10 includes a position mechanism secured to the base. The end of the link 10 has a position mechanism which moves the saw seat to transversely to the sides. See Figs. 1 and 3 in Olsen. Olsen does not teach that the link includes two symmetrically

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opposite first links each having a first end mounted on the positioning seat and two symmetrically opposite second links each having a first end pivotally mounted on a second end of a respective one of the two first links. Olsen also does not teach two symmetrically opposite third links each having a first end pivotally mounted on a second end of a respective one of the two second links and a second end pivotally mounted on a connecting seat which is mounted on the saw seat. However, the use of symmetrically opposite links connected to one another for linear movement of a device is well known in the art such as taught by Kroeker. Kroeker teaches a link for linear movement of the device 250 including two symmetrically opposite first links 358, 358' each having a first end mounted on the rotatable positioning seat 370, 370' and two symmetrically opposite second links 354, 354' each having a first end pivotally mounted on a second end of a respective one of the two first links 358, 358'. Kroeker also teaches two symmetrically opposite third links each having a first end pivotally mounted on a second end of a respective one of the two second links 354, 354' and a second end pivotally mounted on a connecting seat 14 which is mounted on the device 250. See Fig. 3 and col. 5, lines 5-52 in Kroeker. It would have been obvious to a person of ordinary skill in the art to replace Olsen's link with the link mechanism as taught by Kroeker in order to move the saw linearly in an alternative way which is faster and has fewer connected parts or members and facilitated the rotation of the link mechanism.

Regarding claim 3, Olsen teaches everything noted above including that the base 5 has a side provided with a support seat and the position seat of the link mechanism is secured on the support seat of the base 5 by a locking pin 13. The support seat of the base is defined with the top surface of the base 5 which has an arcuate T-slot 14. The position seat also includes

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the pedestal 6. The bolt 13, which is defined as a locking, locks the position seat of the link mechanism 10 to T-slot 14 of the support seat. See Fig. 3 and page 1, lines 65-84 in Olsen.

Regarding claims 5-8, Olsen as modified by Kroeker teaches everything noted above including that two first links 358, 358', two second links 354, 354', and two third links are arranged in a substantially V-shaped manner. Olsen as modified above also teaches that the connecting seat 14 is substantially V-shaped. See Fig. 3 in Kroeker.

Regarding claim 9, Olsen as modified by Kroeker teaches everything noted above including that the connecting seat 14 has two sides each pivotally connected with the second end of the respective third links by a pivot shaft 370, 370'. See Figs. 3 and 5 in Kroeker.

7. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olsen in view of Kroeker, as applied to claim 2, and in further view of Duff et al. (4,765,098), here in after Duff. Regarding claims 10 and 11, Olsen as modified by Kroeker teaches everything noted above except that the second end of each of the two third links is provided with a catch block that can be rested on the connecting seat in such a manner that limits the outmost stroke of each of the two third links when each of the two third links is extended outwardly relative to the respective link. Olsen as modified by Kroeker also does not teach that first end of the two second links is provided with a catch block that can be rested on the respective third link in such a manner that limits the innermost stroke of each of the two third links when each of the two third links is retracted inward relative to the respective second link. However, official notice is taken that the use of catch block to limit the forward and backward movement of a link is well known in the art. In addition, Duff

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teaches a catch block 99 that limits the forward movement of the link 16 by resting against the seat 100 when the link 16 is extended to its outmost position. The catch block 99 also limits the retraction of the link 91 toward the link 90. It would have been obvious to a person of ordinary skill in the art to provide two third links and two second links of Olsen's link mechanism with the catch block as taught by Duff in order to limit forward and backward movement of the saw assembly and consequently position the saw blade to a desired position.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kakimoto et al. (6,532,853), Suzuki et al. (5,791,224), Harnden (5,365,812), Hunt et al. (2,551,130), and Koning teach a circular sawing machine including a base, a saw seat, and a link mechanism.

Kimura (4,712,969), Caveney et al. (5,743,704), Sebazco (2002/0006284), Namiki et al. (5,288,379), Becker (1,190,215), Carducci (6,132,165), Temman (6,722,834), and Saeki (6,575,691) teach a link mechanism having first, second and third links for linear movement of a device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ghassem Alie whose telephone number is (703) 305-4981.

The examiner can normally be reached on Mon-Fri 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on (703) 305-1082.


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The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9302 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

GA/ga

April 28, 2004



Allan N. Shoap
Supervisory Patent Examiner
Group 3700